NCC Pediatrics Continuity Clinic Curriculum:
Disparities in Health Care
Faculty Guide

Goals & Objectives:

Upon completion of this module, the learner should be able to:

a. Understand the difference between health disparities and health equity, and the implications for both on research, policy and practice
b. Describe examples of health disparities within various populations
c. Discuss efforts and resources to address health inequities in pediatrics and/or the military population

Pre-Meeting Preparation:

Please read/review the following:

- "The Influence of Implicit Bias on Treatment Recommendations for 4 Common Pediatric Conditions: Pain, Urinary Tract Infection, Attention Deficit Hyperactivity Disorder, and Asthma." Sabin JA and Greenwald AG. *Am J Public Health* 2012;102:988-995.
- "The Impact of Unconscious Bias in Healthcare: How to Recognize and Mitigate It." Marcelin JR, Siraj DS, Victor R, Kotadia S, and Maldonado YA. *J Infect Dis* 2019;220:S62-S73.
- "Child Health Disparities: What Can a Clinician Do?" Cheng TL, Emmanuel MA, Levy DJ, and Jenkins RR. *Pediatrics* 2015;136;961.

Conference Agenda:

- Discuss cases
- Review "Being An Active Bystander" handout from The OSU Kirwan Institute for the Study of Race and Ethnicity
- Review quiz questions

Extra Credit:

- Take an Implicit Association Test
- Watch the "The Neuroscience of Decision-Making: Are We Foul or Fair?" TED Talk by Kimberly Papillion, Esq.
- Complete The OSU Kirwan Institute Implicit Bias Module Series
- Kaiser Family Foundation Racial Equity and Health Policy page
- 2022 Kids Count Data Book *(Annie E. Casey Foundation)*
- The Intersection of Race, Racism, and Child and Adolescent Health *(PIR, August 2022)*
- The Impact of Racism on Child and Adolescent Health *(AAP Policy Statement, Pediatrics, 2019)*

The Influence of Implicit Bias on Treatment Recommendations for 4 Common Pediatric Conditions: Pain, Urinary Tract Infection, Attention Deficit Hyperactivity Disorder, and Asthma

Janice A. Sabin, PhD, MSW, and Anthony G. Greenwald, PhD

Objectives. We examined the association between pediatricians' attitudes about race and treatment recommendations by patients' race.

Methods. We conducted an online survey of academic pediatricians (n = 86). We used 3 Implicit Association Tests to measure implicit attitudes and stereotypes about race. Dependent variables were recommendations for pain management, urinary tract infections, attention deficit hyperactivity disorder, and asthma, measured by case vignettes. We used correlational analysis to assess associations among measures and hierarchical multiple regression to measure the interactive effect of the attitude measures and patients' race on treatment recommendations.

Results. Pediatricians' implicit (unconscious) attitudes and stereotypes were associated with treatment recommendations. The association between unconscious bias and patient's race was statistically significant for prescribing a narcotic medication for pain following surgery. As pediatricians' implicit pro-White bias increased, prescribing narcotic medication decreased for African American patients but not for the White patients. Self-reported attitudes about race were associated with some treatment recommendations.

Conclusions. Pediatricians' implicit attitudes about race affect pain management. There is a need to better understand the influence of physicians' unconscious beliefs about race on pain and other areas of care. (*Am J Public Health.* 2012;102:988–995. doi:10.2105/AJPH.2011.300621)

Management of asthma, attention deficit hyperactivity disorder (ADHD), urinary tract infection (UTI), and pain are common conditions routinely treated by pediatricians. The childhood prevalence of asthma, the most common chronic pediatric illness, is 10% (n = 7 million), with 8% of White children, 8% of Hispanic children, and 17% of non-Hispanic Black children currently diagnosed with asthma.[1] African American children experience the highest rates of asthma hospitalization and asthma mortality relative to other racial and ethnic groups, and this disparity is widening.[2] ADHD is diagnosed in 4.1% of all children, with the greatest prevalence among White children (5.1%). However, among male children, prevalence of ADHD by race is 3% for Hispanics, 4.3% for Whites, and 5.65% for African Americans.[3] A meta-analysis to determine prevalence of UTI in children found that UTIs accounted for 5% to 14% of all pediatric emergency room visits annually and for 7% of infants presenting with fevers.[4]

Racial and ethnic disparities are found in asthma care, medication use for ADHD, children's timely and appropriate receipt of medication, pain management, and quality of primary care.[2,5–8] For asthma, the rate of emergency department visits is 3 times higher for minority children than for nonminority children and use of daily anti-inflammatory medication is lower.[9] African American and Hispanic children are more likely to have a potentially avoidable asthma hospitalization.[9] African American and Hispanic children with asthma in the Military Health System are less likely to see a specialist than White children with asthma,[9] even though specialist care for asthma is more likely than primary care to follow recommended guidelines.[10] Minority children have lower likelihood of receiving a diagnosis of ADHD and of receiving any medication for ADHD.[11] For the current research, we adopted the following National Institutes of Health definition of "race" (derived from a more detailed definition by the National Research Council):

> a continuously evolving social construct used to categorize individuals into groups that have typically been based on the physical characteristics (e.g. skin color, hair texture or other distinctive characteristics, etc.) of an individual or their ancestors.[12]

We used the following Institute of Medicine definition of "ethnicity": "a concept referring to a shared culture and way of life."[5(p523)]

Pain management is an area in which racial and ethnic disparities are well documented and persist.[8,13] In a national study of hospital emergency departments that measured pain medication–prescribing patterns over a 13-year period (1993–2005), White patients were more likely to receive an opioid analgesic than African American, Hispanic, or Asian patients.[8] Differential treatment, which was found among adults and children for all types of pain, was greater as severity of pain increased, and the disparities did not decrease over time.[8] Compared with research on adult pain, there is less research on racial and ethnic disparities in pain management for children, although pain is generally undertreated in children.[14] One study in a pediatric hospital setting showed that Latino children received 30% less opioid analgesics than did White children for early postoperative pain.[7]

It is not uncommon for minority patients or parents to report discrimination in health care.[15–20] Parents of minority children report lower scores on interpersonal relationship with primary care providers, lower scores for provider communication, and less participatory

decision-making.[2] Patient perceptions and experiences of discrimination in health care can cause delay in timely treatment, an interruption in continuity of care, and mistrust and avoidance of the health care system.[20,21] A study of physician behavior in real-world clinical interactions with adults found that, compared with White patients, physicians spend less time with African American patients, are more verbally dominant, and show a less positive affect.[22]

The Institute of Medicine report *Unequal Treatment* (2003) found that "bias, stereotyping, prejudice, and clinical uncertainty on the part of healthcare providers may contribute to racial and ethnic disparities in healthcare."[5(12)] Social psychologists and the Institute of Medicine speculate that providers' explicit and implicit attitudes and beliefs may subtly and unintentionally contribute to disparities.[5,23,24] Explicit attitudes are ones we know we have and can report to others.[25] Implicit refers to attitudes that are outside of awareness, are not available to report, and are thus considered "unconscious."[25] Implicit attitudes and stereotypes can exist even among individuals who endorse egalitarian beliefs.[26–29] Explicit and implicit attitudes and stereotypes are often only weakly related.[29–32] In the more affective dimensions of social interactions such as nonverbal behavior, implicit attitudes and stereotypes about race are more closely related to the behavior of prejudice and discrimination than is self-report.[33,34] The existence of implicit bias in an individual does not always result in discrimination, but because implicit attitudes and beliefs are unrecognized and unintentional, these biases may subtly affect behavior.

We are extending our previous work that reported on the strength of pediatricians' implicit and explicit attitudes and beliefs about race and their association with the difference between optimal care and "adequate" or good enough care.[35] In this study, we examined pediatricians' implicit and explicit attitudes and beliefs about race and their association with each treatment recommendation for 4 conditions that are routinely seen in pediatric practice: asthma, ADHD, UTI, and pain. We expected that physicians' self-reported attitudes and beliefs about race would be related to treatment recommendations. We hypothesized that we would find an association between strength of physicians' implicit pro-White attitudes and stereotypes about race and treatment recommendations by patients' race.

METHODS

We collected data for this study in September and October 2005 using a single-session online survey of pediatricians. We recruited pediatricians from one department at a large, urban research university. We invited all faculty, residents, and fellows to participate in the study. Participants practice in primary care, ambulatory, and acute care settings. We implemented the survey on the *Project Implicit* Web servers at Harvard University.

Measures

Case vignettes. To explore the association of physicians' attitudes and stereotypes about race with treatment options for asthma, UTI, ADHD, and pain, we designed 4 pediatric case vignettes using scenarios that this sample of pediatricians would likely encounter in their own clinical practice. Case vignettes are considered a valid method to measure quality of care.[36,37] They have been shown to compare favorably to the research "gold standard" of using standardized patients to measure quality of care.[36] Patients were male in 2 of the cases (pain and ADHD) and female (UTI and asthma) in 2 cases. Each vignette had 2 versions; 1 version of each case was of an African American patient and 1 version was of a White patient. Each participant randomly received 2 vignettes in which the patient was described as African American and 2 in which the patient was described as White, but never the same vignette with both race variations.

The case vignettes were written by a senior faculty pediatrician and used in this study for the first time (Figure A, available as a supplement to the online version of this article at http://www.ajph.org). Each case vignette was purposefully designed to contain some degree of clinical uncertainty. Uncertainty is one factor known to contribute to bias in medical decisionmaking.[14,38,39] The case vignettes focused on primary care referral versus specialist referral for an 8-year-old female patient with an acute asthma exacerbation following an emergency department visit and 2 prior hospitalizations, inpatient versus outpatient management of a 6-week-old female patient with a UTI, treatment of a 9-year-old male patient diagnosed with ADHD, and pain management for a 14-year-old male patient after discharge following open reduction and internal fixation of a femur fracture. Treatment options for each case were designed to represent best practice versus "adequate" or good enough care so that subtle differences in quality could be assessed. Participants responded to each treatment option in each case using a 5-item scale:

1. "I strongly disagree. This is clearly the wrong treatment option."
2. "I disagree. This is the wrong treatment option."
3. "I neither agree nor disagree with this treatment option."
4. "I agree. This is a good treatment option."
5. "I strongly agree. This is clearly a good treatment option."

Explicit attitudes and stereotypes. We used the following 2 "feelings" items: (1) "My feelings toward African Americans are . . .," and (2) "My feelings toward European Americans are . . . . " (Answer options ranged from 0 = cold to 10 = warm.) We asked participants to respond to 4 additional explicit questions that related in topic to the implicit measures. For these 4 questions, answers ranged from 1 to 7 (1 = African Americans are more likely; 4 = African Americans and European Americans are equally likely; 7 = European Americans are more likely). A previous report of frequency of responses to these questions showed no statistically significant difference between "warm feelings" for European Americans and African Americans.[35] However, 76% reported that in their own practice, African Americans were likely to be more "compliant" and 86% associated the concept of "receiving preferred medical care" with African American patients.[35]

Implicit attitudes and stereotypes. The Implicit Association Test (IAT) is a widely used, indirect measure of implicit social cognition.[40] It is a timed cognitive test used to measure the relative strength between positive and negative associations toward one social group compared with another, such as African Americans and European Americans and "good" and "bad" (Figure B, available as a supplement to the online version of this article at http://www.ajph.org). Test takers are asked to sort and

group facial images of the target concept (African American faces and European American faces) and words that represent "good" or "bad." The difference in time taken to sort and group these images with value-laden concepts reflects the ease of automatic association. There is often a difference observed between implicit attitudes about race measured by the IAT and self-reported or explicit attitudes and stereotypes about race.[30,32,41] One study shows that in socially sensitive areas, the IAT is more predictive of the behavior of discrimination than is self-report.[34] We used 3 IATs to measure pediatricians' implicit attitudes: a Race IAT to measure attitudes about race; a Race–Medical Compliance IAT to measure a stereotype of race and medical compliance; and a Race–Quality of Care IAT to measure a stereotype of race and perceptions of "preferred" (the best or ideal) care versus "adequate" (good enough) care.

All 3 IATs used computer-generated facial images (labeled "African American" and "European American") to represent race. We used words to represent the targeted concepts of good versus bad, compliant patient versus reluctant patient, and preferred versus acceptable medical care. We designed the Race–Medical Compliance IAT[35] to assess an automatic association between race and medical compliance using the target categories of race and the concept of compliant patient versus reluctant patient. We designed the Race–Quality of Care IAT[35] to assess an automatic association between race and the concept of preferred (ideal) versus acceptable (good enough) medical care. For a detailed description, see online Figure B.

Analysis

For the IATs, we calculated an IAT D score using the standard IAT algorithm.[42] The mean IAT D score is a continuous variable that is normally distributed. A positive IAT D score indicates some degree of implicit preference for White relative to African American. To assess effect size, we used Cohen's d, a standardized effect size measure. Cohen's d is interpreted as follows: d of 0.2 = small effect, d of 0.5 = medium effect, and d of 0.80 = large effect.[43] We analyzed the association between physicians' explicit and implicit attitudes and stereotypes about race and each specific treatment option for all 4 case vignettes using Pearson correlation. We repeated this analysis for physicians' gender. We assessed the interactive effect of explicit and implicit measures and patient's race on each treatment recommendation for each case vignettes. We created a product term for each potential interaction and used hierarchical linear regression analysis to assess whether the 2 variables together predicted treatment recommendations.

RESULTS

The overall response rate was 58% (n = 95), with 53% of the eligible sample completing all measures (n = 86). Seven of the 95 participants dropped out before completing the IATs (n = 88), and 2 more participants dropped out before completing explicit questions, which were presented last. The majority of our sample was female (65%), residents or fellows (59%), and White (82%). We compared those who responded with the complete eligible sample and found that a greater proportion of responders were female (65% vs 51%) and that the proportion of Whites was similar (82% vs 84%).[35] Twenty-five percent of respondents reported that, in the last 1 month, their patient population was less than 50% White, 18% reported that it was 50% to 60% White, and 57% reported that it was more than 60% White.

Implicit Measures

We previously reported implicit bias scores for this sample, using mean IAT D scores and Cohen's d to measure effect sizes.[35] This sample of pediatricians, overall, showed weak pro-White implicit bias on the Race IAT (mean IAT D score = 0.18, SD = 0.44, $P = .01$, Cohen's d = 0.40), a moderate implicit pro-White race and medical compliance stereotype (mean IAT D score = 0.25, SD = 0.42, $P = .001$, Cohen's d = 0.60), and a moderate implicit association of African Americans rather than White Americans with the concept of "preferred" medical care (mean IAT D score = –0.21, SD = 0.33, $P = .001$, Cohen's d = –0.64).[35]

Treatment Recommendations for Case Vignettes

A detailed previous report of responses to differences by patient race between optimal care and adequate care for the case vignettes showed no statistically significant difference, except for UTI, in which case the White patient was more likely to remain hospitalized.[35] We conducted further analyses of physicians' attitudes and stereotypes and physicians' response to each individual treatment recommendation on all 4 case vignettes (Table 1). We found that for pain management and treatment of UTI, physicians most often chose the optimal treatment recommendation. For ADHD, most physicians favored 2 of the options: (1) an individual education program and long-acting Ritalin (75% agreed with this option), which is the optimal recommendation, and (2) an individual education program and behavioral intervention (85% agreed), which is not the best option. For asthma, the majority of physicians did not agree with a referral to the pulmonary clinic (44% agreed), although this was indicated. The majority chose to refer the patient back to primary care (77% agreed).

We expected that self-reported attitudes and stereotypes about race would be associated with treatment recommendations for each case. However, we found no significant relationship between any self-reported measures and

TABLE 1—Physicians' Agreement With Treatment Recommendations for 4 Common Pediatric Conditions: University of Washington Physician Survey 2005, United States, September–October 2005

Treatment	No. (%)
Pain control	
Oxycodone for 5 more d[a]	47 (50)
Ibuprofen	11 (12)
Management of UTI	
Home[a]	60 (65)
Inpatient	31 (33)
ADHD	
IEP + long-acting Ritalin[a]	70 (75)
IEP + behavioral intervention	79 (85)
IEP + short-acting Ritalin	23 (25)
Asthma control	
Refer to pulmonary clinic[a]	41 (44)
Refer back to primary care physician	72 (77)

Note. AHDH = attention deficit hyperactivity disorder; IEP = individual education program; UTI = urinary tract infection. Physicians (n = 95) gave a response to each option.
[a]The recommended ideal treatment.

treatment of pain and UTI for African American patients (results not shown). Pediatricians who reported that White patients rather than African American patients were generally more medically compliant were more likely to agree with prescribing a narcotic medication for pain for the White patient but not the African American patient. For the White patient, the measure of "warm feelings" for European Americans was significantly positively related to the nonpharmacologic treatment of ADHD and for referring the asthma patient back to the primary care physician rather than to the pulmonary clinic. Neither option is optimal care. "Warm feelings" for African American patients were not associated with treatment recommendations.

We hypothesized that implicit attitudes and stereotypes about race would be associated with treatment recommendations. There were no significant associations between implicit attitudes and stereotypes about race and any of the treatment recommendation options for UTI, ADHD, and asthma (Table 2). For pain, participants with greater implicit pro-White bias were more likely to agree with prescribing a narcotic medication for postsurgical pain for the White patient but more likely to disagree with prescribing it for the African American patient. Physicians who demonstrated stronger pro-White bias on the Race IAT were more likely to agree with prescribing ibuprofen for the White patient (not the best option), but no significant association was found for the African American patient. For pain management, we found a significant correlation between

TABLE 2—Intercorrelations of Measures of Physicians' Implicit Racial Bias and Treatment Recommendations, by Patient's Race: University of Washington Physician Survey 2005, September-October 2005.

Treatment Recommendations	Race IAT (n = 43)	Race–Medical Compliance IAT (n = 88)	Race–Quality of Care IAT (n = 45)
African American Patients			
Pain			
Give oxycodone[a]	–0.38*	–0.11	0.04
Give ibuprofen	0.22	0.23	–0.30
Urinary tract infection			
Treat as outpatient[a]	–0.15	0.04	–0.07
Treat as inpatient	0.27	0.20	–0.24
Attention deficit hyperactivity disorder			
IEP + long-acting Ritalin[a]	0.49	0.04	–0.21
Behavioral intervention + short-acting Ritalin	0.27	–0.18	0.03
Behavioral intervention + IEP	0.14	0.06	0.32
Asthma			
Refer to pulmonary clinic[a]	–0.10	0.16	0.43
Refer back to primary care physician	0.43	0.01	–0.17
White Patients			
Pain			
Give oxycodone[a]	0.47	0.37*	0.67**
Give ibuprofen	0.61*	0.08	–0.31
Urinary tract infection			
Treat as outpatient[a]	–0.12	–0.14	–0.06
Treat as inpatient	–0.12	0.07	0.49
Attention deficit hyperactivity disorder			
IEP + long-acting Ritalin[a]	–0.38	0.11	–0.14
Behavioral intervention + short-acting Ritalin	0.27	0.08	0.11
Behavioral intervention + IEP	0.01	–0.01	0.03
Asthma			
Refer to pulmonary clinic[a]	–0.04	–0.09	–0.09
Refer back to primary care physician	0.31	–0.11	0.19

Note. IAT = Implicit Association Test; IEP = individual education program. Intercorrelations are Pearson correlation coefficients. The numbers of patients by race and treatment recommendation are as follows. For African American patients, treatment for pain and urinary tract infection, n = 27 for Race IAT, n = 57 for Race–Medical Compliance IAT, n = 30 for Race–Quality of Care IAT; treatment for attention deficit hyperactivity disorder and asthma, n = 15 for Race IAT, n = 30 for Race–Medical Compliance IAT, n = 15 for Race–Quality of Care IAT. For White patients, treatment for pain and urinary tract infection, n = 15 for Race IAT, n = 30 for Race–Medical Compliance IAT, n = 15 for Race–Quality of Care IAT; treatment for attention deficit hyperactivity disorder and asthma, n = 27 for Race IAT, n = 56 for Race–Medical Compliance IAT, n = 29 for Race–Quality of Care IAT.
[a]The recommended ideal treatment.
*P = .05; **P = .01.

physician female gender and the willingness to prescribe a narcotic pain medication for the White patient, but not for the African American patient (results not shown).

We examined the interactive effect or joint association of implicit attitudes about race, implicit stereotypes about race-medical compliance, implicit beliefs about "preferred care," and patient's race on treatment recommendations. There were no significant joint associations between patient's race and implicit measures on treatment for UTI and asthma. We found a statistically significant association between patient's race and implicit race bias on treatment of ADHD. Stronger implicit pro-White bias was associated with recommending an individual education program and long-acting Ritalin (the best option) for both the White patient and the African American patient (not shown). We found a statistically significant joint association of pediatricians' implicit biases and patient race on pain management (Figure 1). For management of pain, physicians with low pro-White implicit race bias agreed with the recommendation of 5 more days of oxycodone for the African American patient (the best option), and physicians with high implicit race bias did not agree.

DISCUSSION

We expected that physicians' self-reported positive attitudes and beliefs about race would be associated with recommending the best treatment option for the African American patient and the White patient. Most pediatricians reported "warm feelings" for both White Americans and African Americans. We found that physicians' self-reported attitudes about race (warm feelings and medical compliance) were associated with agreeing with recommendations for the White patient that are not the recommended guidelines for treatment.[10,44] This is an area that warrants further exploration.

On the basis of previous research, we expected that physicians' implicit pro-White biases might be related to poorer quality of care for an African American patient than for a White patient.[45] With the exception of pain management, we found no significant correlation between implicit measures and treatment recommendations. Implicit attitudes and stereotypes may not influence care for many chronic and acute pediatric conditions. More research is needed that uses representative samples of physicians who serve diverse patient populations to determine the influence of providers' implicit attitudes and stereotypes in a variety of areas of care in which disparities are known to exist. Physicians' gender was associated with prescribing narcotic pain medication for the White patient but not the African American patient. Future research is needed to determine whether and how provider characteristics such as gender and race interact with implicit attitudes and beliefs about race and patient race to influence medical care across a spectrum of chronic and acute conditions.

We chose pain management for 1 case vignette because this is an area with reported disparities, a high level of clinical subjectivity, and reports of clinicians' associations of African Americans with perceptions of opioid misuse. In a study of patients' opioid misuse, providers were more likely to assess African American patients, younger patients, and patients with a history of illicit drug use as likely to have misused prescribed opioids.[46] However, this perception was not correct; only the patients who had a history of illicit drug use reported opioid misuse.[46] Pain inherently introduces clinical uncertainty into the clinical interaction because it is based on individual subjective report. Clinical uncertainty, a high workload, physician fatigue, and other circumstances that produce cognitive stress lead to bias and error in medical decision-making.[14,38,39,47] These are conditions that physicians routinely encounter in everyday practice. Clinicians are more likely to apply social stereotypes to pain management decisions when the circumstances are complex and when they believe this information is clinically relevant.[48] Our research is the first to show that physicians with more pro-White implicit bias were more ready to prescribe pain medication to White patients than to African American patients. In addition, our study is the first to show a negative joint effect of implicit race biases and patient's race on treatment of pain.

Our study found a surprising positive interaction effect between patient's race and physician's implicit race bias on the guideline recommended treatment of ADHD, but not for the other options of ADHD treatment presented. As physicians' implicit pro-White bias increased, the likelihood of recommending the optimal treatment recommendation (an individual education program and long-acting Ritalin) for the African American patient and the White patient increased. We speculate that there is an unknown variable to account for this finding. The influence of providers' implicit attitudes about race on treatment of ADHD is an area in need of further study.

Implicit attitudes are related to affective dimensions of behavior such as nonverbal friendliness.[33] Development and evaluation of educational programs that target improvements in the more affective dimensions of communication and clinical behavior may contribute to reducing disparities in care. Many African American patients perceive discrimination in health care, and those who perceive it prefer a physician of their own race/ethnicity.[49] However, African Americans and other minorities continue to be underrepresented in the physician workforce.[49] One study found that African American physicians show no implicit racial bias for either Whites or African Americans.[29] Increasing diversity in the physician workforce may help decrease the effects of implicit bias in health care through increasing the opportunity for patient–provider concordance and increasing the likelihood that all patients interact with unbiased providers.

Limitations

There are several limitations of this study. First, as previously reported, the response rate for completing all measures in our survey was 53%. We do not know whether the response rate had an effect on our results. In addition, female physicians were overrepresented relative to the eligible sample.[35] Research shows that female physicians hold less implicit race bias than male physicians,[29] and because most of our respondents were female, our results may be an underestimation of the influence of implicit bias on treatment. Second, an important limitation of our study is that we were unable to explore the interaction of physician's gender, race, and implicit attitudes and stereotypes and of patient's race on treatment because of the small sample size. Third, our findings are not generalizable because of the small, nonrepresentative sample of pediatricians who participated in the study. Finally, rather than assessing real-world quality

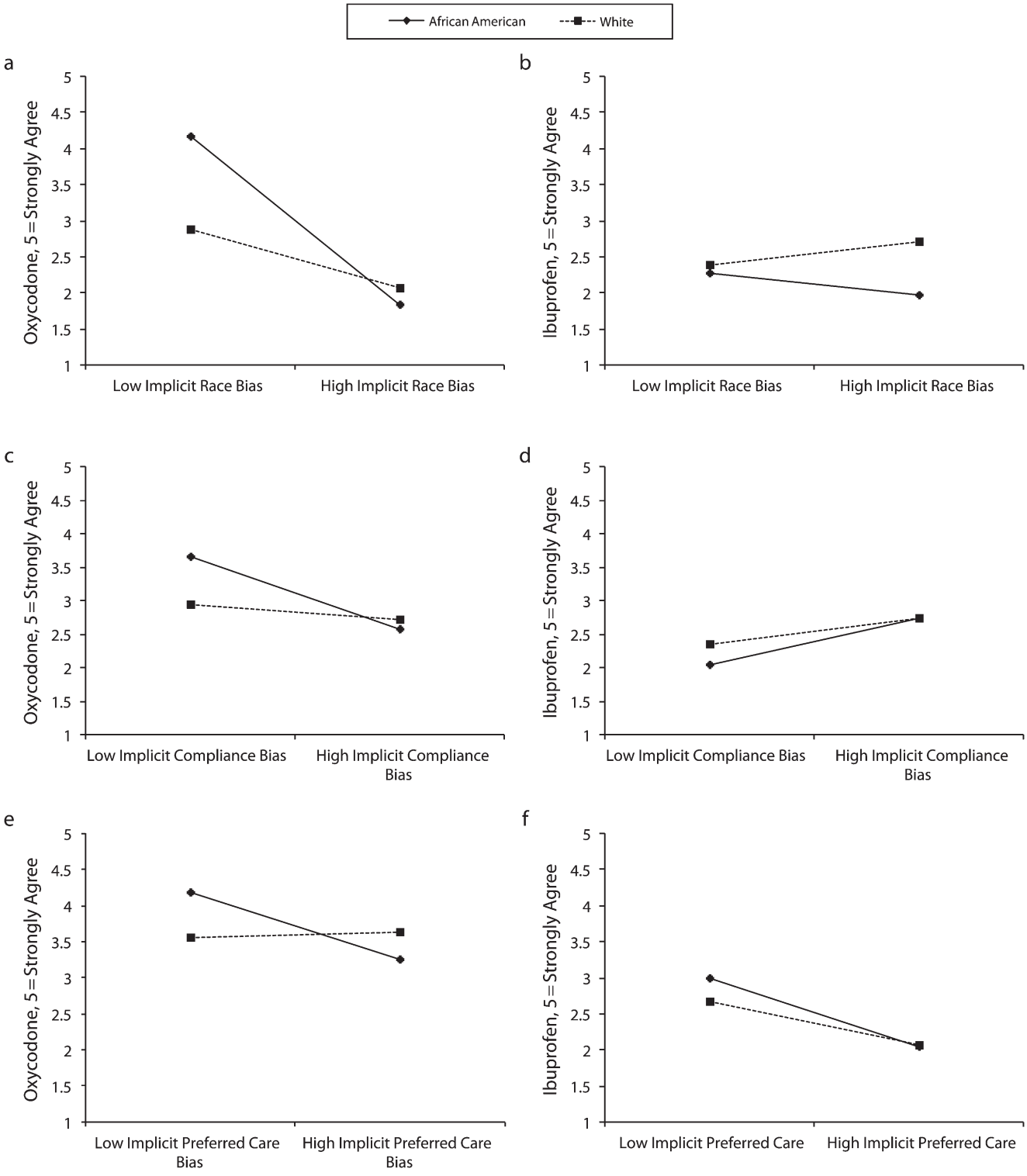

FIGURE 1—Relationship between physicians' implicit bias and decisions regarding pain treatment with (a, c, e) oxycodone or (b, d, f) ibuprofin, by race of the patient: University of Washington Physician Survey 2005, September-October 2005.

of care, our study presented treatment recommendations using case vignettes, which may not represent how this sample of pediatricians would actually deliver care. Despite these limitations, our study provides the first evidence in support of the hypothesis that provider's implicit attitudes about race may have a negative influence in some areas of pediatric care.

Conclusions

Implicit bias is a common social phenomenon,[27,35] but its influence on clinical practice can be managed. Acknowledging one's own biases and stereotypes about race may help to manage the influence of implicit biases on clinical practice. When clinicians become aware of areas in which they hold implicit bias and situations in which biases are likely to be activated, they can be more purposeful in decision-making. Methods to manage the effects of implicit bias on medical care include placing greater emphasis on adhering to clinical guidelines, using objective decision tools, instituting team-based care in which decision-making is shared, and improving clinicians' patient- and family-centered communication skills. Organizational auditing of disparities in care can identify areas in which implicit bias may be affecting clinical care.

Incorporating the evidence of the science of unconscious bias, self-assessment, and communication skills enhancement into medical education, continuing medical education, education for nurses, public health practitioners, and other health care providers and evaluating the impact of this education on clinical care is one approach to reducing health disparities. ■

About the Authors

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Contributors

J. A. Sabin led the writing of the article. Both authors contributed to the conceptualization of the research, analysis of the data, interpretation of the results, and writing of the article, and approved the final version of the article.

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Human Participation Protection

All aspects of the research were reviewed and approved by the University of Washington human subjects institutional review board.

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SUPPLEMENT ARTICLE

The Impact of Unconscious Bias in Healthcare: How to Recognize and Mitigate It

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The increasing diversity in the US population is reflected in the patients who healthcare professionals treat. Unfortunately, this diversity is not always represented by the demographic characteristics of healthcare professionals themselves. Patients from underrepresented groups in the United States can experience the effects of unintentional cognitive (unconscious) biases that derive from cultural stereotypes in ways that perpetuate health inequities. Unconscious bias can also affect healthcare professionals in many ways, including patient-clinician interactions, hiring and promotion, and their own interprofessional interactions. The strategies described in this article can help us recognize and mitigate unconscious bias and can help create an equitable environment in healthcare, including the field of infectious diseases.

Keywords. Unconscious bias; diversity and inclusion; mitigating strategies.

There is compelling evidence that increasing diversity in the healthcare workforce improves healthcare delivery, especially to underrepresented segments of the population [1, 2]. Although we are familiar with the term "underrepresented minority" (URM), the Association of American Medical Colleges, has coined a similar term, which can be interchangeable: "Underrepresented in medicine means those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population" [3]. However, this definition does not include other nonracial or ethnic groups that may be underrepresented in medicine, such as lesbian, gay, bisexual, transgender, or questioning/queer (LGBTQ) individuals or persons with disabilities. US census data estimate that the prevalence of African American and Hispanic individuals in the US population is 13% and 18%, respectively [4], while the prevalence of Americans identifying as LGBT was estimated by Gallup in 2017 to be about 4.5% [5]. Yet African American and Hispanic physicians account for a mere 6% and 5%, respectively, of medical school graduates, and account for 3% and 4%, respectively, of full-time medical school faculty [6]. As for LGBTQ medical graduates, the Association of American Medical Colleges does not report their prevalence [6]. Persons with disabilities are estimated to be 8.7% of the general population [4], while the prevalence of physicians with disabilities has been estimated to be a mere 2.7% [7]. Furthermore, although women currently outnumber men in first-year medical school classes [8], gender disparities still exist at higher ranks in women's medical careers [9–11].

Unconscious or implicit bias describes associations or attitudes that reflexively alter our perceptions, thereby affecting behavior, interactions, and decision-making [12–14]. The Institute of Medicine (now the National Academy of Medicine) notes that bias, stereotyping, and prejudice may play an important role in persisting healthcare disparities and that addressing these issues should include recruiting more medical professionals from underrepresented communities [1]. Bias may unconsciously influence the way information about an individual is processed, leading to unintended disparities that have real consequences in medical school admissions, patient care, faculty hiring, promotion, and opportunities for growth (Figure 1). Compared with heterosexual peers, LGBT populations experience disparities in physical and mental health outcomes [15, 16]. Stigma and bias (both conscious and unconscious) projected by medical professionals toward the LGBTQ population play a major role in perpetuating these disparities [17]. Interventions on how to mitigate this bias that draw roots from race/ethnicity or gender bias literature can also be applied to bias toward gender/sexual minorities and other underrepresented groups in medicine.

The specialty of infectious diseases is not free from disparities. Of >11 000 members of the Infectious Diseases Society of America (IDSA), 41% identify as women, 4% identify as African American, 8% identify as Hispanic, and <1% identify as Native American or Pacific Islander (personal communication, Chris Busky, IDSA chief executive officer, 2019). However, IDSA data on members who identify as LGBTQ and members with disabilities are not available.

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Glossary of key terms used in discussion of unconscious bias

Active bystander—A person who witnesses a situation, acknowledges the potential problem, and speaks up about it [59]

Bias—Tendency to favor one group over another; biases can be favorable or unfavorable and can be unconscious (implicit or unintentional) or conscious (explicit or intentional) [14]

Cultural humility—Defined by its ongoing self-reflection: a lifelong commitment to continuously evaluate one's own behaviors, beliefs, and identities and determine how potential biases and assumptions may surface when collaborating with an individual of a different background [72]

Intent vs impact—Concept that the focus of behavioral change should consider the impact on the recipient regardless of the *intent* of the offending behavior (ie, whether a result of unconscious or conscious bias) [59]

Microaggression—"Brief and commonplace daily verbal/nonverbal behavioral, and environmental indignities whether intentional or unintentional that communicate hostile, derogatory or negative racial/ethnic, gender, sexual orientation, and religious slights and insults" [73], (p. 271); these can occur wherever people are perceived as "other"; some groups have a lifetime burden of microaggressions that can contribute to physical or psychological illness

Prejudice—Outward expressions of negative attitudes towards different social groups [20]

Stereotype—An oversimplified, fixed, and widely held belief about an entire group of people; stereotypes may not always be accurate, especially when they lead to judgments applied to individuals within that group [14]

Unconscious bias—Attitudes or stereotypes that unconsciously alter our perceptions or understanding of our experiences, thereby affecting behavior, interactions, and decision-making [12–14]

Underrepresented minority—Understood to mean either underrepresented minorities or underrepresented in medicine

Figure 1. Glossary of key terms.

The 2017 IDSA annual compensation survey reports that women earn a lower income than men [18], and a review of the full report demonstrates similar disparities among URM physicians, compared with their white peers [19]. While it may not be feasible to assign a direct causal relationship between unconscious bias and disparities within the infectious diseases specialty, it is reasonable and ethical to attempt to address any potential relationship between the two. In this article, we define unconscious bias and describe its effect on healthcare professionals. We also provide strategies to identify and mitigate unconscious bias at an organizational and individual level, which can be applied in both academic and nonacademic settings.

UNCONSCIOUS BIAS—THE ROLE IT PLAYS AND HOW TO MEASURE IT

Even in 2019, overt racism, misogyny, and transphobia/homophobia continue to influence current events. However, in the decades since the healthcare community has moved toward becoming more egalitarian, overt discrimination in medicine based on gender, race, ethnicity, or other factors have become less conspicuous. Nevertheless, unconscious bias still influences all human interactions [13]. The ability to rapidly categorize every person or thing we encounter is thought to be an evolutionary development to ensure survival; early ancestors needed to decide quickly whether a person, animal, or situation they encountered was likely to be friendly or dangerous [20]. Centuries later, these innate tendencies to categorize everything we encounter is a shortcut that our brains still use.

Stereotypes also inadvertently play a significant role in medical education (Figure 1). Presentation of patients and clinical vignettes often begin with a patient's age, presumed gender, and presumed racial identity. Automatic associations and mnemonics help medical students remember that, on examination, a black child with bone pain may have sickle-cell disease or a white child with recurrent respiratory infections may have cystic fibrosis. These learning associations may be based on true prevalence rates but may not apply to individual patients. Using stereotypes in this fashion may lead to premature closure and missed diagnoses, when clinicians fail to see their patients as more than their perceived demographic characteristics. In the beginning of the human immunodeficiency virus (HIV) epidemic, the high prevalence of HIV among gay men led to initial beliefs that the disease could not be transmitted beyond the gay community. This association hampered the recognition of the disease in women, children, heterosexual men, and blood donor recipients. Furthermore, the fact that white gay men were overrepresented in early reported prevalence data likely led to lack of recognition of the epidemic in communities of color, a fact that is crucial to the demographic characteristics of today's epidemic. Today, there is still no clear solution to learning about the epidemiology of diseases without these imprecise associations, which can impact the rapidity of accurate diagnosis and therapy.

IMPACT OF BIAS ON HEALTHCARE DELIVERY

Unconscious bias describes associations or attitudes that unknowingly alter one's perceptions and therefore often go unrecognized by the individual, whereas conscious bias is an explicit form of bias that is based on one's discriminatory beliefs and

values and can be targeted in nature [14]. While neither form of bias belongs in the healthcare profession, conscious bias actively goes against the very ethos of medical professionals to serve all human beings regardless of identity. Conscious bias has manifested itself in severe forms of abuse within the medical profession. One notable historical example being the Tuskegee syphilis study, in which black men were targeted to determine the effects of untreated, latent syphilis. The Tuskegee study demonstrated how conscious bias, in this case manifested in the form of racism, led to the unethical treatment of black men that continues to have long-lasting effects on health equity and justice in today's society [21]. Given the intentional nature of conscious bias, a different set of tools and a greater length of time are likely required to change one's attitudes and actions. Tackling unconscious bias involves willingness to alter one's behaviors regardless of intent, when the impact of one's biases are uncovered and addressed [22]

There is still debate, however, about the degree to which unconscious bias affects clinician decision-making. In one systematic review on the impact of unconscious bias on healthcare delivery, there was strong evidence demonstrating the prevalence of unconscious bias (encompassing race/ethnicity, gender, socioeconomic status, age, weight, persons living with HIV, disability, and persons who inject drugs) affecting clinical judgment and the behavior of physicians and nurses toward patients [12]. However, another systematic review found only moderate-quality evidence that unconscious racial bias affects clinical decision-making [23]. A detailed discussion of the impact of unconscious bias on healthcare delivery is out of the scope of this article, which is focused on the impact of unconscious bias as it relates to healthcare professionals themselves. Nevertheless, strategies to mitigate the effects of unconscious bias (discussed later) can be applied to healthcare delivery and patient interactions.

MEASURING BIAS—THE IMPLICIT ASSOCIATION TEST (IAT)

While we know that unconscious bias is ubiquitous, it can be difficult to know how much it affects a person's daily interactions. In many cases, an individual's unconscious beliefs may differ from their explicit actions. For example, healthcare professionals, if asked, might say they try to treat all patients equally and may not believe they hold negative attitudes about patients. However, by definition, they may lack awareness of their own potential unconscious biases, and their actions may unknowingly suggest that these biases are active.

To measure unconscious bias, Drs Mahzarin Banaji and Anthony Greenwald developed the IAT in 1998 [24]. Many versions of the IAT are accessible online (available at: https://implicit.harvard.edu/implicit/), but one of the most studied is the Race IAT. The IAT has been extensively studied as an inexpensive tool that provides feedback on an individual biases for self-reflection. The IAT calculates how quickly people associate different terms with each other. To determine unconscious race bias, the race IAT asks the subject to sort pictures (of white and black people) and words (good or bad) into pairs. For example, in one part of the Race IAT, participants must associate good words with white people and bad words with black people. In another part of the Race IAT, they must associate good words with black people and bad words with white people. Based on the reaction times needed to perform these tasks, the software calculates a bias score [20, 24]. Category pairs that are unconsciously preferred are easier to sort (and therefore take less time) than those that are not [24]. These unconscious associations can be identified even in individuals who outwardly express egalitarian beliefs [20, 24]. According to Project Implicit, the Race IAT has been taken >4 million times between 2002 and 2017, and 75% of test takers demonstrate an automatic white preference, meaning that most people (including a small group of black people) automatically associate white people with goodness and black people with badness [20]. Proponents of the IAT state that automatic preference for one group over another can signal potential discriminatory behavior even when the individuals with the automatic preference outwardly express egalitarian beliefs [20]. These preferences do not necessarily mean that an individual is prejudiced, which is associated with outward expressions of negative attitudes toward different social groups [20].

Many of the studies of unconscious bias described in this article use the IAT as the primary tool for measuring the phenomenon. Nevertheless, the degree to which the IAT predicts behavior is as of yet unclear, and it is important to recognize the limitations and criticisms of the IAT, as this is pertinent to its potential application in mitigating unconscious bias. Blanton et al reanalyzed data from 2 studies supporting the validity of the IAT, claiming that there is no evidence predicting individual behavior, with concerns for interjudge reliability and inclusion of outliers affecting results [25]. Response to this criticism by McConnell et al describes extensive training of test judges and evidence that the reanalysis was not a perfect replication of methods [26]. Blanton et al argue further in a different article that attempting to explain behavior on the basis of results of the IAT is problematic because the test relies on an arbitrary metric, leading to identified preferences when individuals are "behaviorally neutral" [27]. Notwithstanding the limitations of the IAT, none of its critics refute the existence of unconscious bias and that it can influence life experiences. The following sections review how unconscious bias affects different groups in the healthcare workforce.

Racial Bias

Medical school admissions committees serve as an important gatekeeper to address the significant disparities between racial

and ethnic minorities in healthcare as compared to the general population. Yet one study demonstrated that members of a medical school admissions committee displayed significant unconscious white preference (especially among men and faculty members) despite acknowledging almost zero explicit white preference [28]. An earlier study of unconscious racial and social bias in medical students found unconscious white and upper-class preference on the IAT but no obvious unconscious preferences in students' response to vignette-based patient assessments [29]. Unconscious bias affects the lived experiences of trainees, can potentially influence decisions to pursue certain specialties, and may lead to isolation. A recent study by Osseo-Asare et al described African American residents' experiences of being only "one of a few" minority physicians; some major themes included discrimination, the presence of daily microaggressions, and the burden of being tasked as race/ethnic "ambassadors," expected to speak on behalf of their demographic group [30].

Gender Bias

Gender bias in medical education and leadership development has been well documented [11, 31]. Medical student evaluations vary depending on the gender of the student and even the evaluator [31]. Similar studies have demonstrated gender bias in qualitative evaluations of residents and letters of recommendations, with a more positive tone and use of agentic descriptors in evaluations of male residents as compared to female residents [11]. Studies evaluating inclusion of women as speakers have also demonstrated gender bias, with fewer women invited to speak at grand rounds [9] and differences in the formal introductions of female speakers as compared to male speakers [32, 33], with men more likely referred to by their official titles than women.

Sexual and Gender Minority Bias

Sexual and gender minority groups are underrepresented in medicine and experience bias and microaggressions similar to those experience by racial and ethnic minorities. Experiences with or perceptions of bias lead to junior physicians not disclosing their sexual identity on the personal statement part of their residency applications for fear of application rejection or not disclosing that they are gay to colleagues and supervisors for fear of rejection or poor evaluations [34]. In one study, some physician survey respondents indicated some level of discomfort about people who are gay, transgender, or living with HIV being admitted to medical school. These respondents were less likely to refer patients to physician colleagues who were gay, transgender, or living with HIV [35]. These explicit biases were significantly reduced, compared with those revealed in prior surveys done in 1982 and 1999; opposition to gay medical school applicants went from 30% in 1982 to 0.4% in 2017, and discomfort with referring patients to gay physicians went from 46% in 1982 to 2% in 2017 [35]. The 2017 survey did not measure levels of unconscious bias, which is likely to still be pervasive despite decreased explicit bias. As with other types of bias, these data reveal that explicit bias against gay physicians has decreased over time; the degree of unconscious bias, however, likely persists. While this is encouraging to some degree, unconscious bias may be much more challenging to confront than explicit bias. Thus, members of underrepresented groups may be left wondering about the intentions of others and being labeled as "too sensitive."

Studies including the perspectives of LGBTQ healthcare professionals demonstrate that major challenges to their academic careers persist to this day. These include lack of LGBTQ mentorship, poor recognition of scholarship opportunities, and noninclusive or even hostile institutional climates [36]. Phelan et al studied changes in biased attitudes toward sexual and gender minorities during medical school and found that reduced unconscious and explicit bias was associated with more-frequent and favorable interactions with LGBTQ students, faculty, residents, and patients [37].

Disability Bias

Physicians with disabilities constitute another minority group that may experience bias in medicine, and the degree to which they experience this may vary, depending on whether disabilities may be visible or invisible. One study estimated the prevalence of self-disclosed disability in US medical students to be 2.7% [7]. Medical schools are charged with complying with the Americans With Disabilities Act, but only a minority of schools support the full spectrum of accommodations for students with disabilities [38]. Many schools do not include a specific curriculum for disability awareness [39]. Physicians with disabilities have felt compelled to work twice as hard as their able-bodied peers for acceptance, struggled with stigma and microaggressions, and encountered institutional climates where they generally felt like they did not belong [40]. These are themes that are shared by individuals from racial and ethnic minorities.

MITIGATING UNCONSCIOUS BIAS

A strategy to counter unconscious bias requires an intentional multidimensional approach and usually operates in tandem with strategies to increase diversity, inclusion, and equity [41, 42]. This is becoming increasingly important in training programs in the various specialties, including infectious diseases. The Accreditation Council for Graduate Medical Education recently updated their common program requirements for fellowship programs and has stipulated that, effective July 2019, "[t]he program's annual evaluation must include an assessment of the program's efforts to recruit and retain a diverse workforce" [43]. The implication of this requirement is that recognition

and mitigation of potential biases that may influence retention of a diverse workforce will ultimately be evaluated (directly or indirectly).

Mitigating unconscious bias and improving inclusivity is a long-term goal requiring constant attention and repetition and a combination of general strategies that can have a positive influence across all groups of people affected by bias [44]. These strategies can be implemented at organizational and individual levels and, in some cases, can overlap between the 2 domains (Figure 2). In this section, we review how infectious diseases clinicians and organizations like IDSA and hospitals can use some of these strategies to address and mitigate implicit bias in our specialty.

Organizational Strategies

Commitment to a Culture of Inclusion: More Than Just Diversity Training or Cultural Competency

Creating change requires more than just a climate survey, a vision statement, or creation of a diversity committee [45]. Organizations must commit to a culture shift by building institutional capacity for change [41, 46]. This involves reaffirming the need not only for the recruitment of a critical mass of underrepresented individuals, but equally importantly, the recruitment of critical actor leaders who take the role of change agents and have the power to create equitable environments [41, 47–49]. These change agents need not themselves be underrepresented; indeed, the success of culture change requires the involvement of allies within the majority group (eg, men, white people, and cis-gender heterosexual individuals). IDSA has demonstrated a commitment to this type of culture change with recent changes in leadership structure and with intentional recruitment of individuals invested in diversity and inclusion; however, there is always room for reevaluation of other areas where diversity is desired.

Committing to a culture of inclusion at the academic-institution level involves creating a deliberate strategy for medical trainee admission and evaluation and faculty hiring, promotion, and retention. Capers et al describe strategies for achieving diversity through medical school admissions, many of which can also be applied to faculty hiring and promotion [49]. Notable strategies they suggest include having admissions (or hiring) committee members take the IAT and reflect on their own potential biases before they review applications or interview candidates [49]. They also recommend appointing women, minorities, and junior medical professionals (students or junior faculty) to admissions committees, emphasizing the importance of different perspectives and backgrounds [49]. Organizations can also survey employee perception of inclusivity. These assessments include questions on the degree to which an individual feels a sense of belonging within an institution, alongside questions pertaining to experiences of bias on the grounds of cultural or demographic factors [50]. Conducting regular assessments and analysis of survey results, particularly on how individuals of diverse backgrounds feel they can exist within the organization and their culture simultaneously, allows organizations to ensure that their trainings on unconscious bias and promotion of cultural humility lead to long-term positive change. Furthermore, realizing that different demographic groups may feel less respected than others provides information on areas of focus for consequent refresher seminars on combating unconscious bias in conjunction with cultural humility.

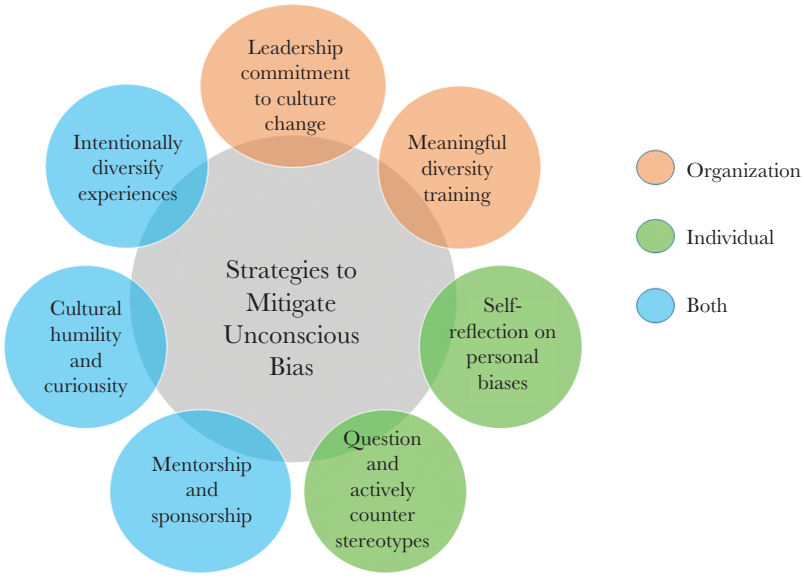

Figure 2. Organization-level and personal-level strategies to mitigate unconscious bias. Orange circles indicate organization-specific strategies, green circles indicate individual-level strategies, and blue circles represent strategies that can be emphasized on both organizational and individual levels to mitigate implicit bias.

Meaningful Diversity Training and the Usefulness of the IAT

Notwithstanding potential criticisms of the IAT with respect to prediction of discriminatory behavior, this can be a useful tool within a comprehensive organizational training seminar directed toward understanding and addressing individual unconscious bias. In the study by Capers et al, over two thirds of admissions committee members who took the IAT and responded to the post-IAT survey felt positive about the potential value of this tool in reducing their unconscious bias [28]. Additionally, almost half were cognizant of their IAT results when interviewing for the next admissions cycle, and 21% maintained that knowledge of this bias affected their decisions in the next admissions cycle [28]. Perhaps this knowledge led to conscious changes in committee member behavior because, in the following year, the matriculating class was the most diverse in that institution's history [28, 49]. A similar bias education intervention coupled with the IAT led to a decreased unconscious gender leadership bias in one academic center [48]. IDSA and infectious diseases practices (or academic divisions) could consider ways to incorporate this into already established training for those in leadership roles or on leadership search committees.

Of course, the potential applicability of the IAT can be overstated—at best, several meta-analyses have demonstrated that there may only be a weak correlation between IAT scores and individual behavior [51–53], and several criticisms of the IAT have already been discussed here. Additionally, while important to acknowledge that bias is pervasive, care must be taken to avoid normalizing bias and stereotypes because this may have the unintended consequence of reinforcing them [54]. Important points that should be emphasized when using the IAT as part of diversity training include that (1) people should be aware of their own biases and reflect on their behaviors individually; (2) the IAT can suggest generally how groups of people with certain results may behave, rather than how each individual will behave; and (3) on its own, the IAT is not a sufficient tool to mitigate the effects of bias, because if there is to be any chance of success, an active cultural/behavioral change must be engaged in tandem with bias awareness and diversity training [55].

Individual Strategies

Deliberative Reflection

Before encounters that are likely to be affected by bias (such as trainee evaluations, letters of recommendation, feedback, interviews, committee decisions, and patient encounters), deliberative reflection can help an individual recognize their own potential for bias and correct for this [56]. It is also a good time to consider the perspective of the individual whom they will be evaluating or interacting with and the potential impact of their biases on that individual. Participants can be encouraged to evaluate how their own experiences and identities influence their interactions. Including data on lapses in proper care due to provider bias also proves helpful in giving workers real-life examples of the consequences of not being vigilant for bias [51, 57]. This motivated self-regulation based on reflections of individual biases has been shown to reduce stereotype activation and application [44, 58]. If one unintentionally behaves in a discriminatory manner, self-reflection and open discussion can help to repair relationships (Figure 3).

Question and Actively Counter Stereotypes

Individuals may question how they can actively counter stereotypes and bias in observed interactions. The

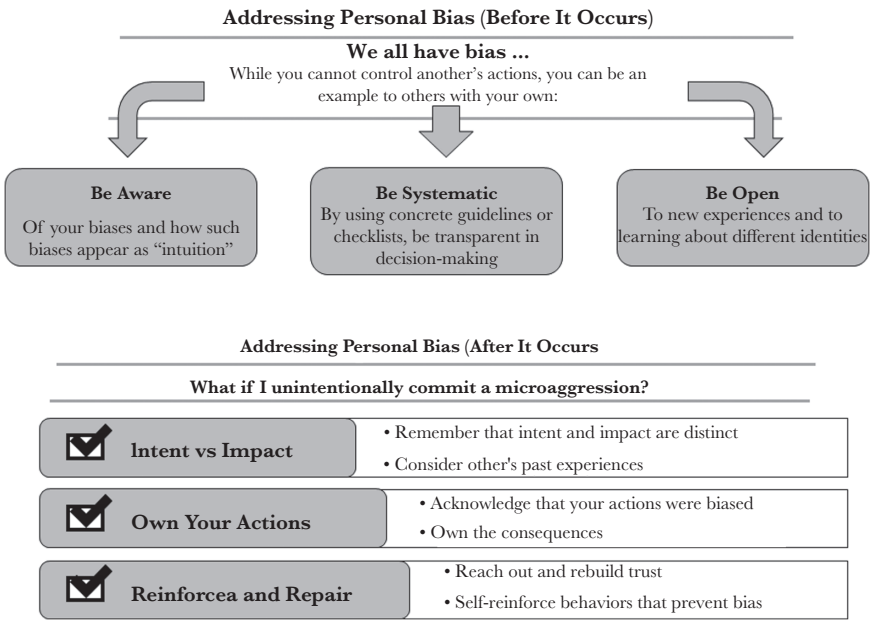

Figure 3. Strategies to address personal bias before and after it occurs.

active-bystander approach adapted from the Kirwan Institute [59] can provide insight into appropriate responses in these situations (Figure 4).

Strategies That Apply to Both Organizations and Individuals

Cultural Competency and Beyond: Cultural Humility

Healthcare organizations seeking to develop providers who can work seamlessly with colleagues and more effectively treat patients from all cultural backgrounds have been conducting trainings in cultural competency [60]. The term "cultural competency" implies that one has achieved a static goal of championing inclusivity. This approach imparts a false sense of confidence in leaders and healthcare professionals and fails to recognize that our understanding of cultural barriers is continually growing and evolving [61]. Cultural humility has been proposed as an alternate approach, subsuming the teachings of cultural competency while steering participants toward a continuous path of discovery and respect during interactions with colleagues and patients of different cultural backgrounds [62]. Other synonymous terms include "cultural sensitivity" and "cultural curiosity." Rather than checking a box for training, cultural humility focuses on the individual and teaches that developing one's self-awareness is a critical step in achieving mindfulness for others [63]. Cultural humility emphasizes that individuals must acknowledge the experiential lens through which they view the world and that their view is not nearly as extensive, open, or dynamic as they might perceive [61]. By training leaders and healthcare professionals that they do not need to be and ultimately cannot be experts in all the intersecting cultures that they encounter, healthcare professionals can focus on a readiness to learn that can translate to greater confidence and willingness in caring for patients of varying backgrounds [61].

As cultural humility is important to recognizing and mitigating conscious and unconscious biases, patient simulations and diversity-related trainings should be augmented with discussions about cultural humility. By integrating cultural humility into healthcare training procedures, organizations can strive to eliminate the perceived unease healthcare professionals might experience when interacting with individuals from backgrounds or cultures unfamiliar to them. Cultural humility starts from a condition of empathy and proceeds through the asking of open questions in each interaction (Figure 1). Instilling elements of cultural humility training within simulation-based learning provides participants with experience in treating a wide array of patients while providing low-risk, feedback-based learning opportunities [22, 64].

Diversify Experiences to Provide Counterstereotypical Interactions

Exposing individuals to counterstereotypical experiences can have a positive impact on unconscious bias [10, 44, 55]. Therefore, intentional efforts to include faculty from underrepresented groups as preceptors, educators, and invited speakers can help reduce the unconscious associations of these responsibilities as unattainable. Capers et al suggest that including students, women, and African Americans and other racial and ethnic minorities on admissions committees may be part of a strategy to reduce unconscious bias in medical school admissions [49]. If institutions, organizations, and conference program committees are aware of their own metrics in this respect, following this information with deliberate choices to remedy inequities can have a profound impact on increasing diversity [65]. Furthermore, in medical training, while deliberate curricula involving disparities and care of underrepresented individuals are beneficial, educators must be aware of the impact of the hidden curriculum on their trainees. The term "hidden curriculum" refers to the aspects of medicine that are learned by trainees outside the traditional classroom/didactic instruction environment. It encompasses observed interactions, behaviors, and experiences often driven by unconscious and explicit bias and institutional climate [66–68]. Students can be taught to actively seek out the hidden curriculum in their training

Step 1: Acknowledge the bias in the interaction	
Step 2: Make a conscious decision to address the bias	
Step 3: Utilize one of the following action strategies to counter the bias	
Humor[a]	*"English is my first language, what's yours?"* (eg, In response to *"your English is so good!"*)
Reject the stereotype outright	*"I don't get the joke"*
Ask questions	*"What did you mean when you said ___?"*
Acknowledge discomfort	*"What you just said makes me very uncomfortable. Please don't speak like that around me anymore."*
Be direct	*"I know you didn't intend for your words to be interpreted as a stereotype, but as your friend, I wanted to be honest with you that that's how it came across."*
Step 4: Continue the conversion beyond the interaction	

Adapted with permission from Tenney [59].

[a]Humor is potentially culturally based, and may not always work

Figure 4. Kirwan Institute approach to countering unconscious bias as an active bystander.

environment, reflect on the lessons, and use this reflection to inform their own behaviors [67]. Individuals can intentionally diversify their own circles, connecting with people from different backgrounds and experiences. This can include the occasionally awkward and uncomfortable introductions at professional meetings or at community events, making an effort to read books by diverse authors, or trying new foods with a colleague. These are small behavioral changes that, with time, can help to retrain our brain to classify people as "same" instead of "other."

Mentorship and Sponsorship

Mentors can, at any stage in one's career, provide advice and career assistance with collaborations, but sponsors are typically more senior individuals who can curate high-profile opportunities to support a junior person, often with potential personal or professional risk if that person does not meet expectations. URMs and women physicians tend not to have as much support with mentoring and sponsorship as the majority group, white men. Qualitative studies of URM physician perspectives typically reveal themes of isolation and lack of mentorship, regardless of the URM group being studied [30, 36, 69]. Possible reasons include lack of mentors from similar backgrounds or ineffective mentoring in discordant mentor-mentee relationships. Mentor-training workshops that intentionally include unconscious bias training can enhance the effectiveness of mentors working with diverse trainees and junior faculty and address this potential barrier to URM success [70]. Providing mentorship within an individual department, as well as support for participating in external mentorship and career development programs, can help create sponsorship opportunities that eventually influence career advancement [41]. Many professional societies such as IDSA provide mentorship opportunities, and these can be enhanced by encouraging more sponsorship of junior clinicians for opportunities such as podium lectures, moderating at conferences, writing editorials, or committee positions.

SUMMARY

In the years since the IAT was first described, researchers have published countless data on the impact of unconscious bias. Fortunately, explicit and implicit attitudes toward many disenfranchised groups of people have regressed to a more neutral position over time [71], but this does not mean that unconscious bias has disappeared. Just as healthcare providers are required to stay up to date on medical techniques and procedures to best serve their patients, we propose that trainings involving the social aspects of medicine be treated similarly. Cultural humility is characterized by lifelong learning and is a key aspect of a successful provider-patient relationship. Thus, it is imperative that healthcare organizations and professional medical societies such as IDSA continually provide healthcare professionals with learning opportunities to enhance their interactions with individuals different from themselves. Effectively addressing unconscious bias and subsequent disparities in IDSA will need comprehensive, multifaceted, and evidence-based interventions (Figure 5).

CALL TO ACTION

IDSA has demonstrated a commitment to diversifying its society leadership by commissioning the Gender Disparities Task Force and the Inclusion, Diversity, Access & Equity Task Force, reconfiguring existing committees, developing new committees (eg, the Leadership Development Committee), and creating new opportunities, such as the IDSA Leadership Institute. While these are important and impactful actions, we propose the following

Unconscious Bias Highlights

1. Unconscious biases are attitudes or stereotypes that unknowingly alter our perceptions or understanding of our experiences, thereby affecting behavior interactions and decision-making.
2. Unconscious bias can influence behaviors, but the exact extent to which it does so is unclear.
3. Women and individuals underrepresented in medicine can have different experiences with recruitment, hiring, promotion, and compensation (among others) due to unconscious bias, as compared to their majority peers (white men).
4. Strategies to mitigate unconscious bias are multifactorial but involve bias awareness, culture change, countering stereotypes, and intentional group diversification.
5. The extent to which unconscious bias plays a role in diversity challenges within the specialty of infectious diseases is unknown.

The Infectious Diseases Society of America can play a role in mitigating unconscious bias by:

a. Incorporating measurable evidence-based bias reduction strategies into infectious diseases training programs and membership at large
b. Enhancing mentorship programs to intentionally seek equitable inclusion of those traditionally underrepresented in leadership
c. Incorporating principles of cultural humility into leadership development
d. Supporting infectious diseases divisions and fellowship programs with their group efforts to create a more diverse environment

Figure 5. Unconscious bias highlights.

additional steps to address the role of unconscious bias in various settings. First, develop an IDSA-sponsored climate survey to assess perceptions of inclusion and belonging within the Society, and repeat this climate assessment after implementing bias reduction strategies. Second, provide IDSA-sponsored education/training on unconscious bias reduction strategies and cultural humility to academic infectious disease divisions and fellowship programs to support the recruitment and retention of a diverse infectious diseases physician workforce. Third, develop benchmarks for excellence in infectious diseases divisions and fellowship training programs to evaluate these bias reduction strategies. Fourth, provide education/training on unconscious bias–reduction strategies and cultural humility to leadership and membership within IDSA. Specifically, the board of directors, the Leadership Development Committee, the Awards Committee, and others involved in electing, nominating, or honoring members should consider including incorporating the IAT and bias-reduction education for their committee members. After implementing such strategies, IDSA should reevaluate metrics of awardees, committee chairs, and leadership to determine whether these strategies made an impact. Fifth, cultivate existing mentorship programs within IDSA, with the added focus of intentional mentoring and sponsorship of groups traditionally underrepresented in leadership. Sixth, commit to consistent review and revision of infectious diseases recruitment messaging, ensuring that materials and media counter harmful stereotypes and represent true diversity. Seventh, collect, review, and publish metrics of diversity in all facets of the membership, including IDWeek speaker demographic characteristics, IDSA journal editor/reviewers, guideline authorship, and committee membership, with intentional response strategies to change these demographic characteristics to a more diverse distribution. Eighth, be transparent about reporting of metrics, with clear accountability and flexibility to adjust initiatives based on results.

NOTE

Although there are numerous data describing the impact of unconscious bias on healthcare delivery, clinician-patient interactions, and patient outcomes, discussion of these aspects is out of the scope of this article, which focuses on the impact of unconscious bias on healthcare professionals. Additionally, the majority of data on unconscious bias presented in this article relates to general academic training and career development, as data in the infectious diseases practice community is limited. This represents an area of need for evaluation within the specialty of infectious diseases, since a vast majority of members are in clinical practice and may experience bias in varying degrees. While it is important to support trainees who may experience unconscious bias, it is also critical to provide support for infectious diseases clinicians further along in their careers, as a means to maintain retention in the specialty. Finally, some individuals may prefer person-first language, while others may prefer identity-first language when referring to disabilities. We consistently used person-first language throughout this manuscript based on the recommendation by the Centers for Disease Control & Prevention (https://www.cdc.gov/ncbddd/disabilityandhealth/pdf/disabilityposter_photos.pdf).

Notes

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POVERTY AND CHILD HEALTH DISPARITIES

Child Health Disparities: What Can a Clinician Do?

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Pediatric primary and specialty practice has changed, with more to do, more regulation, and more family needs than in the past. Similarly, the needs of patients have changed, with more demographic diversity, family stress, and continued health disparities by race, ethnicity, and socioeconomic status. How can clinicians continue their dedicated service to children and ensure health equity in the face of these changes? This article outlines specific, practical, actionable, and evidence-based activities to help clinicians assess and address health disparities in practice. These tools may also support patient-centered medical home recognition, national and state cultural and linguistic competency standards, and quality benchmarks that are increasingly tied to payment. Clinicians can play a critical role in (1) diagnosing disparities in one's community and practice, (2) innovating new models to address social determinants of health, (3) addressing health literacy of families, (4) ensuring cultural competence and a culture of workplace equity, and (5) advocating for issues that address the root causes of health disparities. Culturally competent care that is sensitive to the needs, health literacy, and health beliefs of families can increase satisfaction, improve quality of care, and increase patient safety. Clinical care approaches to address social determinants of health and interrupting the intergenerational cycle of disadvantage include (1) screening for new health "vital signs" and connecting families to resources, (2) enhancing the comprehensiveness of services, (3) addressing family health in pediatric encounters, and (4) moving care outside the office into the community. Health system investment is required to support clinicians and practice innovation to ensure equity.

Child health and health care disparities by race, ethnicity, and socioeconomic status (SES) are persistent and pervasive. Children of color and in low-income families continue to fall behind their more affluent and majority peers in health status.[1,2] Disparities that originate in childhood have been linked to adult chronic illness.[3] Although disparities must be addressed on the population and policy level, and issues such as poverty, discrimination, or environmental exposures may feel overwhelming, clinicians have a critical role in promoting health equity. The intimate clinician-patient relationship provides an opportunity to uncover and address the root causes of poor health. Culturally competent care that is sensitive to the needs, health literacy, and health beliefs of patients and families can increase quality of care and patient safety.[4] Health disparities are a health care quality and safety issue. When differential treatment or outcomes related to patient characteristics exist, quality improvement (QI) approaches are imperative.

Health inequality refers to differences in the health of individuals or populations, whereas health inequity or disparity refers to inequalities thought to be unfair, unjust, and

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avoidable.[5] Almost all U.S. children have had a well-child visit in the past year,[6] making primary care an ideal location to ensure that children have the support necessary for optimal development and that adversities are buffered. The family contact that both primary and specialty clinicians have in outpatient and inpatient settings can promote health equity and improve health outcomes. Patient-centered medical home recognition[7] and quality benchmarks tied to payment recognize the importance of culturally competent care. National standards for culturally and linguistically appropriate services (CLAS) in health care by the Office of Minority Health have been increasingly embraced by state agencies and legislation. This article outlines specific, practical, actionable, and evidence-based activities that help clinicians assess and address health disparities related to race/ethnicity and SES (Table 1).

"DIAGNOSE DISPARITIES" IN ONE'S COMMUNITY AND PRACTICE

In the 1940s, Sidney Kark conceptualized "community-oriented primary care"[8]; later, the Folsom Commission report, "Health Is a Community Affair," emphasized the importance of knowing one's community and improving health on the local level.[9,10] Today, these ideas continue to resonate. Because communities are constantly changing, CLAS standards emphasize the importance of conducting "regular assessments of community health assets and needs and using the results to plan and implement services that respond to the cultural and linguistic diversity of populations in the service area."[11] Free and easy-to-navigate websites provide city, district, county, state, and national data as well as maps on child and family demographics, health status, and well-being by race/ethnicity and poverty status, with comparisons to others and targets for improvement (Table 1). By periodically reviewing these data, clinicians can keep tabs on the challenges their patients may face and can identify opportunities to help. For instance, if data show changing demographics with a growing immigrant community, assessing linguistic competency, health literacy, and cultural norms may be necessary, with implications for educational efforts, materials, and staffing.

In addition to reviewing population data, examining one's practice performance data stratified by insurance status, race/ethnicity, language, and SES as outlined in the Affordable Care Act (ACA) is critical to understanding areas for improvement. In this era of clinician accountability and performance measures, the QI and health disparities fields must join forces. There is evidence that culturally tailored or targeted QI approaches may have more promise than generic efforts.[12,13]

Finally, families must be involved. Conducting a community needs assessment and including families in improvement approaches can be powerful. For instance, an assessment of community needs identified poor oral health and difficulty finding pediatric dentists who accepted Medicaid. Identifying dentists and disseminating this information improved access and provided a patient voice in advocacy efforts to increase capacity.

Many practices and hospitals have initiated family advisory boards to provide feedback on care systems. Families can provide valuable insight about screening and referral efforts, development of community partnerships, and prioritization of resources and interventions. The National Initiative for Children's Healthcare Quality's toolkit, "Creating a Patient and Family Advisory Council," provides a step-by-step approach to assess practice readiness, recruit members, and involve, evaluate, and sustain an advisory council.[14] The Robert Wood Johnson Foundation has a compendium of useful tools to engage patients in improving ambulatory care (Table 1).[15] Partnering with the community is the focus of research efforts by the Patient-Centered Outcomes Research Institute established in the ACA.

"DIAGNOSE DISPARITIES" IN CLINICAL ENCOUNTERS AND INNOVATE NEW PRACTICE MODELS

To prevent or buffer adversities that children and families may encounter, new delivery approaches and payment models are needed. The Maternal and Child Health Bureau encourages a "whole-person, whole-family, whole-community systems approach" that addresses upstream social determinants of health.[16] Clinical approaches include (1) diagnosing disparities by universal screening and connecting families to resources, (2) enhancing the comprehensiveness of services to address social determinants, (3) addressing family health in pediatric encounters, and (4) moving care outside the office into the community (eg, home, school, daycare) (Fig 1).

The first approach is to diagnose disparities through universal screening for new health vital signs. The American Academy of Pediatrics (AAP) Policy on Health Equity emphasizes that clinic visits are opportunities to screen and address the social, economic, educational, environmental, and person-capital needs of children and families.[17] Whereas clinical vital signs include temperature, heart rate, respiratory rate, blood pressure, and growth parameters, the Robert Wood Johnson Foundation Commission to Build a Healthier America strongly recommended that "new health vital signs" reflecting the root causes of health disparities be included, such as food security, educational progress, family employment, health literacy, neighborhood safety, and adequate housing.[18] For instance, poor housing is linked to health status.[19–21] A child

TABLE 1 Free Web Resources to Assist Clinicians in Assessing and Addressing Health Disparities in Practice

Topic	Resource	Organization	URL
Obtaining Community Statistics (City, Metropolitan Area, District, County, State and National Data)	America's Children: Key National Features of Well-Being	Federal Interagency Forum on Child and Family Statistics	www.childstats.gov
	County Health Rankings & Roadmaps Program	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute	www.countyhealthrankings.org
	Diversitydatakids.org	Brandeis University	diversitydatakids.org
	KIDS COUNT	Annie E. Casey Foundation	datacenter.kidscount.org
	Agenda for Children 2014–2015	American Academy of Pediatrics Division of State Government Affairs	www.aap.org/en-us/advocacy-and-policy/state-advocacy/Pages/Poverty%20and%20Child%20Health%20State%20Advocacy%20Resources.aspx
	State Health Facts	Henry J. Kaiser Family Foundation	kff.org/statedata
Engaging Patients and Families to Improve Practice	Creating a Patient and Family Advisory Council: A Toolkit for Pediatric Practices	National Institute for Children's Health Quality	www.nichq.org/resources/PFAC-toolkit-landingpage.html
	Engaging Patients in Improving Ambulatory Care: A Compendium of Tools	Robert Wood Johnson Foundation	www.rwjf.org/en/research-publications/find-rwjf-research/2013/03/engaging-patients-in-improving-ambulatory-care.html
Health Literacy Toolkits	Health Literacy Universal Precautions Toolkit	Agency for Healthcare Research and Quality (AHRQ)	www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthliteracytoolkit.pdf
	Health Literacy and Patient Safety: Help Patients Understand Kit and Manual for Clinicians	American Medical Association	med.fsu.edu/userFiles/file/ahec_health_clinicians_manual.pdf
	Teach-Back Training	Always Use Teachback! Toolkit	www.teachbacktraining.org
	Health Literacy Video	North Carolina Program on Health Literacy	http://nchealthliteracy.org/teachingaids.html
	See AHRQ Toolkit above for section on teach-back		
Testing for Unconscious Bias	Implicit Association Test	Project Implicit, Harvard University	implicit.harvard.edu/implicit/education.html
Cultural Competence Toolkits	AAP Culturally Effective Care Toolkit	American Academy of Pediatrics	www.aap.org/en-us/professional-resources/practice-support/Patient-Management/Pages/Culturally-Effective-Care-Toolkit.aspx
	National Center for Cultural Competence Self Assessments	National Center for Cultural Competence, Georgetown University	nccc.georgetown.edu/resources/assessments.html

with asthma living in housing with a cockroach infestation or mold will require assistance from social workers, legal advocates, and housing organizations to reduce allergen exposure and improve health.

Addressing these vital signs will require research on effective screeners and interventions, partnerships with community organizations, and appropriate payment for screening and management.

Although the clinician's office is often considered a safe environment in which to address family psychosocial problems, many clinicians fail to monitor these new vital signs and subsequently miss the opportunity to

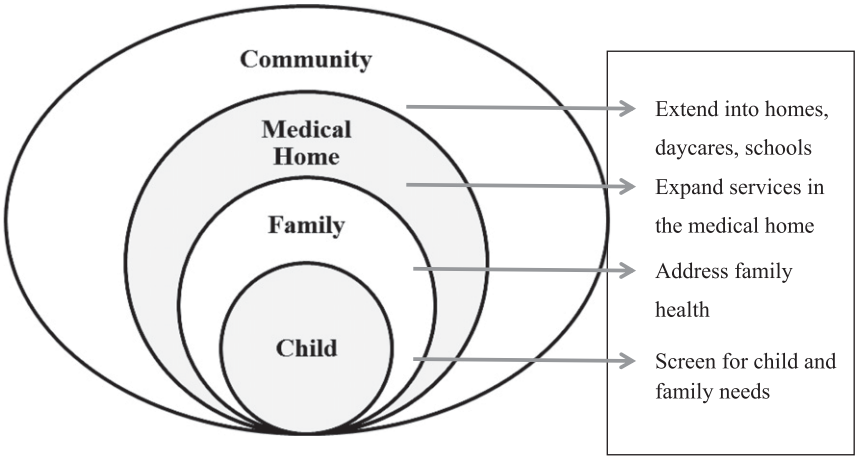

FIGURE 1
Four approaches to address health disparities in clinical practice.

help.[22] The WE CARE 10-item family psychosocial screening instrument was developed to assess family employment, education, housing, or food needs. A study using this screener with referral to community resources was found to be feasible in primary care, adding <2 minutes to the visit and leading to greater discussion of topics and referral completion.[23,24] Screening can be completed before or during a visit using the Internet, smart phones, kiosks, or paper and pencil. The iScreen study compared a screener for social determinants of health on a computer tablet or face-to-face in a pediatric emergency department, finding greater disclosure in electronic format.[25] Screening for adverse childhood experiences has also been proposed to identify and address trauma.

Some clinicians have avoided this type of screening because of limited resources. However, clinician acknowledgment, support, and referrals can be therapeutic, and educational resources are available. For instance, the smokefree.gov website from the National Cancer Institute provides a free quit line or instant messaging support, and all states have quit lines listed. If screening suggests depression, acknowledgment of the concern and referral to clinicians and crisis management hotlines are critical first steps. New models connecting patients to community resources have been developed. The national Health Leads program uses a Family Help Desk staffed by undergraduate volunteers who connect families to community services.[26–28] The CAP4Kids Web site (cap4kids.org/whatiscap4kids.html) provides up-to-date information on community resources in certain cities.[29] New web-based products for sale are being developed and disseminated.

Increasing the comprehensiveness of services in primary or specialty care can provide one-stop shopping to address the new vital signs. Integrating services such as mental health can increase utilization and improve health outcomes.[30] The Healthy Steps model incorporates a child psychologist or developmentalist into pediatric practices, demonstrating greater parent satisfaction[31] and improvement in timely well-child care, immunization and breastfeeding rates, and discipline strategies.[32–34]

Other "wraparound" services could include social work, case management, nutritionists, lactation consultants, health educators, substance use counselors, legal advocates, and career counselors. Reach Out and Read family literacy programs in primary care have demonstrated effectiveness in increasing parental support and how much parents read to their children.[35–37] Medical-legal partnerships integrate pro bono legal services into care teams to address issues such as public benefits, housing, and special education.[38] The Johns Hopkins Children's Center Harriet Lane Clinic is an example of a medical home that has incorporated many of the above services through partnerships with community organizations, optimized billing, and leveraged funds from health plans and private foundations.[30] With the current emphasis on population health and quality measures, payers have greater interest in investing in these services to improve practice and community health outcomes.

The third approach pertains to family health. Pediatric professionals recognize that child and family health are intertwined.[39] The AAP Task Force on the Family states that "families are the most central and enduring influence in children's lives" and coined the term "family pediatrics," which extends pediatrics to include screening, assessment, and referral of parents regarding their health issues.[40] Pediatrics offers an opportunity to facilitate access for families. The AAP recommends screening for parental smoking, maternal depression, and intimate partner violence to improve health for both parents and children.[41–44]

Addressing preconception women's health in pediatric practice is another family care opportunity. Although U.S. infant mortality rates have decreased over time, racial disparities persist. Prenatal interventions have been emphasized, but there is growing attention to preconception women's health. Addressing women's access to care, reproductive planning, nutrition, substance use, and mental health can improve health of future pregnancies and family health.[45,46] Pediatric

practice is an opportune location of contact, as clinicians see all preconceptional adolescents as well as mothers who are interconceptional before their next child. Demonstration of cost-effectiveness and payment models for implementation are needed.

A fourth approach is to move care outside the office and into the community where children are: in the home, daycare, or school. Whereas the medical approach is to ask families to come to offices, population health approaches suggest place-based initiatives and outreach to the child's natural environment. With growing emphasis on population health, prevention of readmissions, and quality measures, insurers and hospitals have become interested. Health reform has augmented home visitation programs. Integration with the medical home could reduce duplication of services and fragmentation while synergizing positive outcomes.[47]

School health, another area of ACA emphasis, has the potential to improve Healthcare Effectiveness Data and Information Set (HEDIS) quality measures, such as the well-adolescent visit rate, by accessing youth in schools. Integrated school health can improve immunization rates, augment chronic disease management, enhance student health education, and improve school outcomes.[48]

BECOME LITERATE ON HEALTH LITERACY

Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.[49] Some studies report that health literacy may be a stronger predictor of health than race/ethnicity, income, employment, and education level.[50] Addressing health literacy is critical for patient-centered, equitable, and safe care and involves improving patient and parent communication with clinicians, increasing knowledge about the health care system, reducing language barriers, and understanding health beliefs.[1]

The Agency for Healthcare Research and Quality (AHRQ) Health Literacy Universal Precautions Toolkit[51] and the American Medical Association's Health Literacy and Patient Safety Kit[49] (Table 1) include instructional videos and a variety of tools to assess clinician communication skills with low-literacy patients and assess patient-friendly office processes. AHRQ discusses 4 areas: spoken communication, written communication, patient self-management and empowerment, and supportive systems.[49] Checklists assess each of these areas and the toolkits offer practical strategies.

Recommendations to improve communication include slowing down, avoiding jargon, and using the "teach-back" technique. Teach-back is a method for clinicians to check whether they have adequately explained information in a manner that the patient understands. This method is 1 of the top 11 evidence-based patient safety practices identified by AHRQ,[52] and research demonstrates that teach-back can improve retention of information, communication, and patient health outcomes.[53–55] It involves asking, "I want to be sure I explained everything clearly. Can you explain it back to me so I can be sure I did?" or "We've gone over a lot of information. In your own words, please review with me what we talked about."[56] Training videos and assessment tools can be found online (Table 1; www.teachbacktraining.org).

DELVE INTO YOUR UNCONSCIOUS BIASES

A study performed using the Implicit Association Test (IAT), a measure of implicit social cognition, found that unconscious preferences and stereotypes are commonplace.[57] Acknowledging that everyone has preferences and conscious or unconscious biases, it is important for clinicians to assess their implicit biases and explore how they affect behavior and treatment of patients. The free IAT assesses unconscious biases on a variety of characteristics such as race/ethnicity, gender, age, and weight status (https://implicit.harvard.edu/implicit).[58] The literature has found an association between clinician race/ethnicity IAT results and their patient care decisions.[59–61]

ENSURE A CULTURE OF EQUITY IN THE WORKPLACE

The AAP policy on "Enhancing the Pediatric Workforce Diversity and Providing Culturally Effective Pediatric Care" discusses the value of regular clinician self-reflection, self-knowledge, and self-critique to ensure cultural competence. For quality and safety, linguistic competency must also be ensured.[62,63] The AAP Culturally Effective Toolkit[64] is a practical, hands-on resource to assist clinicians and their office staff, including tips for busy practices: (1) have staff reflect the diversity of the patient population, (2) know community resources available for racial/ethnic or immigrant groups, (3) ask about nontraditional treatments, (4) consider group visits for families with limited English proficiency, and (5) plan extra time for patients requiring interpreters.

ADVOCATE FOR EFFORTS THAT ADDRESS ROOT CAUSES OF HEALTH DISPARITIES

Health disparities are rooted in social and environmental conditions outside of the health care system. Clinicians must add their voice to child advocacy efforts ensuring affordable, quality health care, child care, education, housing, nutritious food, family supports, and guarantees of a living wage. The AAP tracks state legislative actions on many poverty-related policies and lists state commissions and potential coalition partners (Table 1). Child advocacy or medical associations, community

organizations, and AAP chapters can be powerful agents of change.

SUMMARY

Clinicians play a critical role in diagnosing, addressing, and eliminating the conditions that cause health disparities. Clinician and staff provision of culturally effective care requires periodic assessment. Evidence-based practices can guide improvements. Health system investment in practice approaches to address social determinants of health offer promise to improve population health and ensure health equity.

ABBREVIATIONS

AAP: American Academy of Pediatrics
ACA: Affordable Care Act
AHRQ: Agency for Healthcare Research and Quality
CLAS: culturally and linguistically appropriate services
IAT: Implicit Association Test
QI: quality improvement
SES: socioeconomic status

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GENES FOR OMEGA-3: *A trip to the nutritional supplement aisle of any supermarket or drug store will reveal a large selection of supplements containing omega-3 fatty acids. Many foods that have high levels of omega-3 are promoted as health foods. For many years, scientists, physicians, and nutritionists have recommended increasing the amount of omega-3 fatty acids that Americans should consume. This recommendation is based on the observation made in the 1970s that Inuit peoples have a low incidence of heart attacks despite an extreme diet rich in protein, fatty meat, and fish. The hypothesis is omega-3 fatty acids (typically found in fish) help protect against heart disease. Unfortunately, recent trials have failed to demonstrate that omega-3 supplementation actually helps protect against heart attack or stroke.*

As reported in The New York Times *(Science: September 17, 2015), we now have a better understanding why this may be. Scientists investigated the genome of Greenlanders who were 95% or more Inuit. They were looking for loci that could explain selection advantage or adaptation. While they found several loci that met these criteria, the strongest was located in the area coding for fatty acid desaturases. These desaturases determine omega-3 polyunsaturated fatty acid levels. Almost all Inuit had gene variants in this region compared to 25% of people with Chinese and only 2% with European ancestry. Those with two copies of the gene variant had lower levels of fatty acids in the blood than those without variants. The gene variants allowed Inuit to keep fatty acid levels within a healthy range despite a diet so loaded with omega-3s.*

The gene variants do have other consequences, however. Those individuals with two copies tend to be an inch shorter and weigh 10 pounds less than those without the variants – an effect that can be seen in Europeans as well. The findings that the Inuit have developed genetic adaptations should not be so surprising. Lactose intolerance is uncommon in individuals descended from societies that domesticated cattle – such as Northern European and East African societies. Descendants from other societies in which cattle were not used for milk are much more likely to be lactose intolerant. Two, among many, conclusions can be drawn from the study. First, humans have adapted to maximize the nutritional supplies available. Second, assuming a causal pathway from observational studies is fraught with danger.

Noted by WVR, MD

Disparities in Health Care Cases

Suggested facilitator introduction prior to starting the exercise:

The following case vignettes are designed to stimulate conversations surrounding the biases we hold about our patients. Discussing some of these biases may make you uncomfortable, but this is a safe space and you are encouraged to be forthright and honest in your answers. If you are uncomfortable, consider the reasons why you might feel uncomfortable in answering these questions. There are no right or wrong answers.

Please consider recording the answers to the questions below on the white board or a sheet of paper, in order to refer back to them during discussion.

In answering these questions, you may discover that assumptions about these families reveal some of your implicit biases. It is natural to have implicit biases, and those biases are usually based on your unique life experience. The key is how you act based on that bias and information. The assigned articles explain how implicit biases can lead to discrimination and even harm for individuals. This reflective exercise is just one way to recognize implicit bias and its implications, which is a crucial step towards mitigating bias.

A day in continuity clinic…

You are reviewing your schedule for the afternoon and you notice that your 1300 routine well visit has not checked in yet. The patient, Tai, is a 6-year-old with poorly controlled eczema and moderate persistent asthma was last seen in clinic approximately one year ago for a well-child check. The family was listed as a 'no show' for their follow-up appointment, which was scheduled to further discuss their asthma action plan. Upon further chart review, you notice that there have been several missed visits in the past for asthma and eczema follow-up and that the patient's medications have not been refilled in several months. You proceed with the rest of your clinic, and while you are finishing up with your 1400 patient, you realize that this patient was just checked in.

What are your initial thoughts when preparing to see this family?

- *Discuss biases to patients who are late to clinic appointments.*
- *Any thoughts about the patient's pre-existing conditions?*

The patient is finally screened and brought into the room at 1450 and you notice that they are accompanied by a parent and 2 younger siblings. The screener reports that the family was unable to complete the screening questionnaires due to tardiness.

Do you have any thoughts about what race or nationality this family might be?

What about their socioeconomic status?

What is the parent's gender? How is the parent dressed? What does the parent sound like?

What aspects of what you think and how you feel about this family have the potential to positively or negatively impact the care you provide them?

What social determinants of health may positively or adversely impact their ability to "comply" with their health management plan?

Your next patient, Rosa, scheduled for 1500, is a 14yo here with their retired O6 sponsor. They come annually for visits, but this is your first time seeing them and they need sports physical forms signed. You read that the patient is a freshman in high school, plays soccer, and was reportedly considering a career in medicine per their last visit one year ago.

- Discuss biases about children of officer sponsors.
- Any thoughts about the patient's activities or preferred career path?

You apologize for the wait and begin your clinic visit. The parent is very friendly, complimenting you on your excellent choices to become a physician AND serve your country. The child has no significant past medical history, negative ROS on the intake form, normal vitals, and normal growth curves. You perform a routine physical exam, clear them for sports, and tell them you look forward to seeing them in a year.

What is the patient's gender?

What is the patient's body habitus?

Do you have any thoughts about what race or nationality this family might be?

What is the parent's gender?

How is the parent dressed?

What does the parent sound like?

Should you have done a HEADSSS exam?

Would your race and/or gender affect how you perceive the parent's compliment?
- ***If you were of the same race vs a different race***
- ***If you were of the same gender vs a different gender***

After eliciting these biases, begin discussing the active bystander article (not required reading beforehand). For each case, review the schemas that could have been used to interrupt/redirect our biases.

Thank you for your willingness to be part of a change geared toward the recognition and correction of bias in various forms. We reviewed implicit bias, but explicit biases can also inflict harm. Think about the

assumptions you may have made about patients, and if you've ever heard similar sentiments expressed aloud in the workplace. This can be harmful to our patients, their families, and individuals in our workplace who may identify with the individuals being discussed. It creates a culture of discrimination, intolerance, and unprofessionalism. Instead of permitting these expressions of bias.

We can be active bystanders, willing to confront bias by opening a conversation when we encounter it. In the *Being an Active Bystander* article, The Kirwan Institute invites you to utilize suggested strategies to empower yourself to speak out. Let's discuss some of the biases we've elicited (some examples also listed below).

- **Invite participants to give their own examples of statements that may be used to counter bias statements/thoughts elicited in discussion of cases above or to sample biases listed below.**
- **Facilitator then gives other examples of bias counter statements from the *Being an Active Bystander* article (facilitator can read off examples that best fit discussion points being discussed). Some of the examples can be used to check one's implicit bias as well.**

SAMPLE BIASES

First patient:

- ***These* families are always late.**
- **This parent must be non-compliant/negligent.**
- **This family will likely be difficult to deal with.**

Second patient:

- **Patient likely does not engage in risk-taking behaviors.**
- **Patient likely comes from a good home with little stressors.**
- **Parents likely are engaged and nurturing.**

Suggested bias interruption strategies

- **Deliberative reflection: Helps an individual recognize their own potential for bias and correct for this.**
- **Systematic approach: The use of concrete guidelines or checklists in patient care is a way to help ensure that as a provider we are providing the same standard of care to all patients. This does not mean that every patient is the same, but gives the provider an opportunity to address each area of care for all their patients and to be transparent in decision-making (i.e. provider makes a conscious decision in choosing their plan of care and hopefully has an opportunity to ensure their approach is not clouded by unconscious bias by following treatment guidelines and explaining when they deviate from guidelines to tailor care for patients as needed).**
- **Cultural humility: Involves empathy for those in different situations. Do not assume to understand other's situations and proceed with the asking of open questions in each interaction.**
- **Diversity in experiences: Evidence shows that a diverse healthcare workforce improves healthcare delivery. Seek out opportunities to engage with those different from you (race, ethnicity, religion, gender, sexual orientation, educational level, life experiences, disabilities, etc.).**

BEING AN ACTIVE BYSTANDER

STRATEGIES FOR CHALLENGING THE EMERGENCE OF BIAS

THE KIRWAN INSTITUTE FOR THE STUDY OF RACE & ETHNICITY | AUTHOR: LENA TENNEY

"*When we speak we are afraid our words will not be heard or welcomed. But when we are silent, we are still afraid. So it is better to speak*." *–Audre Lorde*

Thank you for your commitment to challenging explicit and implicit bias. It can be difficult to know what to say when a family member, friend, colleague, acquaintance, or stranger makes problematic comments. However, we will only be able to dismantle oppression in its overt forms if we are brave enough to challenge bias in even its most common forms. The Kirwan Institute invites you to utilize these strategies to empower yourself to speak out in response to bias.

Individuals can be active bystanders when faced with the emergence of bias in interpersonal interactions. These suggestions encompass a variety of approaches to opening a conversation about bias. There is not a one-size-fits-all solution to challenging every manifestation of bias. Consider which strategy or strategies might be most effective based upon situational context, as well as your own strengths.

There is a difference between calling someone in (inviting continued discussion and learning) and calling someone out (shutting down the conversation). Both approaches are valid, yet might be more or less effective in various circumstances. The goals of these strategies are to educate people and invite them to do better, rather than to criticize or ostracize them, thereby addressing the situation while avoiding making the person defensive.

Strategies for Speaking Out

- **Use humor.**
  - "What are you?" "Human! How about you?"
  - "Your English is so good!" "I should hope so since it's the language I've been speaking my entire life!"
- **Be literal or refuse to rely on the assumption being made.**
  - "Let's powwow!" "I don't think we have time to plan a whole powwow, but I'm willing to have a quick meeting."
  - "That's just the way those people are, you know?" "Actually I don't know what you mean by that. I've met a lot of people in that group and they're all unique individuals."
  - "I don't get the joke. Can you explain it to me?"
- **Ask questions that invite discussion.**
  - "What do you mean when you say that?"

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- "Do you know what that phrase actually means and where it came from? Most people have no idea that it actually has an offensive origin/meaning."
- "Can you explain your thought process to me? I want to be sure I understand how we reached such different conclusions."

- **State that you are uncomfortable.**
  - "That phrase makes me uncomfortable. Could you please not use it around me?"
  - "Assumptions about an entire group of people make me uncomfortable. I don't think that we can take that assumption for granted or make our decisions based off of it."
- **Create a conversation speedbump.**
  - "I'm not an expert, but my understanding is that that language is outdated. Does anyone know what might be a better way to phrase that? If not, I'll try to Google it."
  - "I'm not sure what I think about that. I'm going to have to think about that more."
  - "I don't know how I feel about that…"
  - "Ouch!" "Whoa!" "Excuse me?!" or "Seriously?!"
- **Use direct communication.**
  - "That kind of language is not appropriate in the workplace."
  - "When we say that people who are nearing retirement shouldn't be promoted to this position because they might not be as dedicated at this point in their career, I worry we aren't being fair to older employees. That assumption doesn't take into account every individual's circumstances and work ethic, so can we please make sure we aren't relying on it when deciding who to consider for the position?"
  - "I know you aren't intending to stereotype anyone, but as your friend I wanted to let you know that what you said could easily be interpreted that way. Since I know you're a good person who cares about others, I would hate for you to accidentally say it again without realizing how it can come across."
- **Remind people of personal and/or institutional values.**
  - "I know you want to be an ally, and that's exactly why I wanted to check in about your comment. I know I would want someone to tell me if I accidentally messed up."
  - "You're new so maybe you haven't been told yet, but we don't talk about women like that here."
  - "Clearly we have different personal opinions about this topic. Regardless, the handbook/code of conduct/non-discrimination policy does say that we do not discriminate/treat people differently/talk like that."
- **Remove yourself from the conversation.**
  - "This conversation is no longer productive, so I am ending it."
  - "We have this same fight every holiday gathering. Clearly we're not going to change each other's minds. I won't agree to disagree because people's humanity is too important for that, but I will ask that we not have this fight right now. Can we please enjoy family time together instead?"

Additional Resources

- Engage with the virtual training, "Did They Really Just Say That?! Being an Active Bystander"
  - http://kirwaninstitute.osu.edu/active-bystander-training/

Disparities in Health Care Quiz

1. What is meant by health equity?
    a. All patients, regardless of their race or ethnicity, receive the same care.
    b. Health care is delivered in a way to guarantees equal outcomes for each patient.
    c. All patients, regardless of their race or ethnicity, receive the highest-quality care.
    d. All patients receive health care from culturally competent providers.

    Health equity involves care that is specific to the patient's needs and situation. It is not the same as giving all patients the same care. Rather, some patients may require modifications in order to achieve optimal outcomes. The goal is optimal health outcomes by doing the right thing for the right patient at the right time.

2. Health disparity refers to inequalities thought to be unfair, unjust, and avoidable. Which of the following factors can contribute to health disparities?
    a. Universal access to care
    b. Diversity among healthcare providers
    c. Social determinants of health
    d. Cultural humility

    Social determinants of health are the conditions in which people are born, grow, live, work, and age. Health disparities are rooted in social and environmental conditions outside of the health care system. Addressing social determinants of health is important for improving health and reducing disparities. (Pediatrics 2015; KFF.org)

3. Which of the following terms refers to the tendency to favor one group over another?
    a. Prejudice
    b. Stereotype
    c. Bias
    d. Microaggression

4. Some automatic associations and illness scripts (such as a 16yo Black female presenting to the ER with abdominal pain) taught in medical training are examples of which of the following?
    a. Prejudice
    b. Stereotype
    c. Bias
    d. Microaggression

    How does the use of race in illness scripts change the differential diagnosis?
    "If by using a patient's ancestry in medical discourse we can narrow the range of possible diagnoses, then at least we must be careful to describe accurately the genetic, ethnic, cultural, or geographical variables involved; guess what category a person fits in is not acceptable. And when 'race' cannot possibly matter, let us omit it. What difference does it make if it is an African American [person] or an Asian [person] who has an earache or ingrown toenail?"- Excerpt from "The Misuse of Race in Medical Diagnosis" by Richard Garcia, MD

5. Which of the following is NOT an example of implicit bias?
    a. An automatic preference
    b. A negative belief that is suppressible
    c. A positive or negative unconscious attitude
    d. A bias that is acknowledged by the individual

From the Kirwan Institute: "Implicit bias differs from suppressed explicit biases that individuals may conceal for social desirability purposes. Implicit biases are activated involuntarily and beyond our awareness or intentional control. Implicit bias is concerned with unconscious cognition that influences understanding, actions, and decisions, whereas individuals who may choose not to share their explicit beliefs due to social desirability inclinations are consciously making this decision. Implicit biases can be both positive [and] negative, and result from our automatic processing, not deliberate suppression."

6. What is the main difference between implicit and explicit biases?
    a. Implicit biases are more likely to be negative.
    b. Explicit bias is more harmful.
    c. Implicit preferences tend to engage automatic processing (fast thinking) while explicit preferences are more deliberate (slow thinking).
    d. People can recognize when someone is acting on explicit bias, but actions based on implicit bias are too subtle to notice.

From the Kirwan Institute: "The main distinction between implicit and explicit bias are related to the automaticity of how we encode and access our preferences and associations. Our implicit biases reflect our thinking patterns on "auto-pilot" whereas our explicit biases are more deliberative and related to our conscious system of beliefs. The extent to which these types of bias impact our actions, cause negative outcomes, and are apparent to others is going to depend much more on the context or expression of bias."